

*Species dubiæ.*

11. *Echinorhynchus*. Rectum of plover (*Charadrius Hiaticula*).
12. —————. Small intestine of water-ouzel (*Cinclus aquaticus*).
13. —————. Small intestine of smew (*Mergus albellus*).
14. —————. Small intestine of king-eider (*Somateria spectabilis*).
15. —————. Small intestines of rabbit (*Lepus Cuniculus*).

gazine of Natural History; it does not appear to have been ever found by Rudolphi, who has given a description of the species from some specimens communicated to him by Bremser. Bremser found it in but one species, the common cormorant; I have met with it, in addition to the common cormorant, in the crested cormorant, the red-breasted merganser, and in the red-necked grebe, and Dr. Drummond has found it in the goosander.

[To be continued.]

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XXXIII.—*A List of Lichens gathered in different parts of Wales, principally in the neighbourhood of Barmouth, with a few casual observations upon some of the species.* By the Rev. T. SALWEY.

*To Richard Taylor, Esq.*

DEAR SIR,

Oswestry, Feb. 10, 1844.

MAY I request that you will have the kindness to allow me a page or two of your valuable Magazine to supply a few omissions in my list of Welsh Lichens inserted in your January Number?

I am, dear Sir, yours faithfully,

T. SALWEY.

1. *Variolaria multipunctata*. On trees in the woods about Tyn-y-Gooes, &c.
2. *Endocarpon Hedwigii*,  $\beta$  *lachneum* \*. In patches about the rocks; at the angle of the turnpike-road turning down to the harbour between Borthwen and Barmouth, sparingly.
3. ————— *rufo-virescens*, Taylor. On the high wall of the turnpike-road on the right-hand side leading from Barmouth to Harlech, just by the first mile-stone.

This grows not uncommonly upon the walls near Barmouth. It

\* Acharius well observes in his 'Syn.' on this species, that both the colour and the figure of the thallus greatly vary, so that it is not to be wondered at that several species have been made out of one. My specimens are of a reddish brown colour and without apothecia. Those which I have received from other quarters, as "*lachneum*," are of a paler colour, and with numerous apothecia. I think the "*lachneum*" of Fl. Hib. "growing upon rocks in mountain streams" must be a distinct species, as Taylor has made it.

may be distinguished from *smaragdulum*, 1st, by its mode of growth; 2ndly, by the particular habitat which each of these species affects. The *rufo-virescens*, from the scales of the thallus being usually collected together into a close-set areolate crust, forms a well-defined conspicuous object which arrests the eye at some distance. It is also of a darker colour than the *smaragdulum*, being usually of a brown reddish green, whereas the *smaragdulum* is of a pale fawn-colour. 3rdly, the *rufo-virescens* usually grows upon the smooth perpendicular face of the stone; but the *smaragdulum* upon the broken edges of the fracture of the stones in the walls, and can only be chipped off in small bits in the direction of the strata.

4. *Parmelia rugosa*. This grows not uncommonly about Barmouth, but is scarce in fruit. I have gathered however fine specimens in that state on the wall of a field under a wood to the west of the old mill at Ty Gwyn, and also between Crafnant and Cwm Bychan, on a low wall on the right-hand side of the road.
5. *Cornicularia bicolor*. Amongst the stones under the rocks at Llyn Bodlyn.
6. ——— *lanata*. Sent to me by Mr. Ralfs from Cader Idris.
7. *Urceolaria cinerea*. Common, particularly about the borders of lakes. *U. calcarea* is found only where the rocks are of a calcareous nature.
8. *Nephroma resupinata*,  $\beta$  *papyracea*, Ach. and Wahl. On stones and mosses, and upon the mossy trunks of trees: not uncommon. I have hitherto regarded this plant as the *parilis* of Acharius, and I still believe it to be the same as the plant described and figured in the 'Eng. Bot.' under that name. After much examination, however, and in the absence of authentic specimens from Acharius of the Swedish plant, I must confess my belief, that whether the true *parilis* or not, our plant is that which Acharius has described as the "*resupinata*,  $\beta$  *papyracea*;" Wahlenberg as the "*Peltidea resupinata*,  $\beta$  *papyracea*;" and Dillenius, xxviii. 105. p. 206, Edinb. ed. 1811, as the "*Lichenoides fuscum*, var. *farinosa* et *crispa*." My friend Dr. Taylor has always contended that what I have sent him as the *parilis* is only "a mountain state of the *resupinata*." Acharius, who in his 'Lich. Univ.' in 1810 described the *parilis* as a native of Sweden and England, in his 'Syn.' in 1814 speaks of it only as a Swedish plant, as if he had given up the claim of our English plant to be the *parilis*; yet he does not refer to it under the  $\beta$  *papyracea* of that work, so that he leaves us in doubt what at that time he considered the *parilis* of the 'Eng. Bot.' to be. Dillenius, Acharius and Wahlenberg all describe a variety of *resupinata* which pretty accurately agrees with the plant I have hitherto regarded as *parilis*, and which I have indeed no doubt is the *parilis* of 'Eng. Bot.' Dillenius says in the place above cited, "Sunt mihi hujus speciei exemplaria absque peltis cum marginibus crispis et farinosis B: et habeo alia ubi non tantum margines, sed et ipsa folia verrucis farinosis obsita, C, in quibus foliorum superficiem nonnihil lacunosam observo; eadem tamen planta est, tota facie, colore et substantia utrinque congruente." I would here

observe that Dillenius mentions two varieties of the  $\beta$  *papyracea*, both of them having the margins of the lobes of the thallus crisped and mealy, and one of them, in addition to this, having the thallus itself sprinkled with mealy warts. Now my own observation coincides entirely with this, except that the variety *without* the mealy warts is a great deal thinner in the substance of the thallus than the other; often indeed so much so, that it is impossible to detach it from the inequalities of the surface of the stone which it follows, without tearing it. *This* is the var. which I have hitherto regarded as the  $\beta$  *papyracea* of Ach., and the name is very applicable. The substance of the thallus in the other variety, the one sprinkled with mealy warts, is thinner than in the *resupinata*, but thicker than in the last-described variety; and it is this with the mealy warts which I have regarded hitherto as the *parilis* of 'Eng. Bot.' and still believe it to be so, but whether the *parilis* of Sweden I cannot say, having no specimen to refer to. Acharius describes this latter as "granulis nigris obsessus," which looks like our *parilis*, for I have a specimen covered with dark mealy warts, and which on both sides is almost black: usually the colour of this var. beneath is of a dark olive-brown inclining to black, smooth, but wrinkled, and only sparingly beset with the black fibrous roots which attach it to the stones or mosses on which it grows. Wahlenberg does not appear to have met with our variety with mealy warts, for he says of his  $\beta$  *papyracea*, "omnino lævis est, et L. herbaceum apprimè refert," which corresponds well enough with the variety without warts, but not with that variety which has been figured in 'Eng. Bot.' as *parilis*: I have a single specimen of the plant without warts in fruit. Dillenius speaks of it as barren, "absque peltis." Upon the whole, I am inclined to think it still doubtful whether our var. with powdery warts, the *parilis* of 'Eng. Bot.,' may not also be the *parilis* of Acharius, as he considered it when he published his 'Lich. Univ. '; but in the absence of authentic specimens it is perhaps safer for the present to refer both our varieties to *Neph. resupinata*,  $\beta$  *papyracea*.

Since the above was put in type I have received the following additional habitats of Welsh Lichens from my friend Mr. Ralfs.

*Verrucaria viridula*. Common upon the walls on the road-sides about Dolgelley.

*Endocarpon Hedwigii*,  $\gamma$ . Cader Idris, as you ascend to Gen Graig; and by a small stream as you ascend from Llanberis by the side of Glyder towards Twll-du.

*Lecidea cornea*. Dolgelley and Bangor.

—— *aurantiaca*. Bangor. Not uncommon.—T. S.

*Lecanora sophodes*. Bangor.

—— *squamulosa*. Abundant in several places about Dolgelley.

*Parmelia isidioides*. Not uncommon on the trees by the waterfall at Dol-me-lyn-llyn, but in fruit only upon one tree.

*Placodium microphyllum*. In fruit near the stations of the *Parm. isidioides*.

- Parmelia Fahlunensis*. Not unfrequent on Glyder, but in fruit only on Cader Idris.
- *encausta*. Glyder.
- *sinuosa*. Rather plentiful on a wall behind a small inn at the foot of Snowdon, between Carnarvon and Beddgelert.
- *incurva*. Not uncommon upon the walls about the foot of Snowdon.
- Collema fasciculare*. Below Aber waterfall near Bangor.
- *muscolola*. In fruit at Cwm Idwal (in company with Mr. Borrer) and at Machynlleth.
- Peltidea aphthosa*. In fruit on the Brecon Beacon in South Wales.
- Nephroma parilis* (*resupinata*,  $\beta$  *papyracea*). More abundant than *resupinata* on a wall by the road one mile from Dolgelley to Bala.
- Cetraria sepincola*. On the largest of the stones called the Giant's Pebbles by a small pool on the road from Dolgelley to Tal-y-llyn.
- Cornicularia bicolor*. Ditto.

XXXIV.—*A List of the species of Myriapoda, Order Chilognatha, contained in the Cabinets of the British Museum, with descriptions of a new Genus and thirty-two new Species.* By GEORGE NEWPORT, F.R.C.S., Pres. Ent. Soc. &c.

THIS list of *Myriapoda* completes the enumeration and description of species in the cabinets of the British Museum, and includes the whole of the vegetable feeders, as my former list did the carnivorous and mixed feeders.

The *Chilognatha* have usually been regarded by naturalists as the first order of *Myriapoda*, partly in consequence of the more compact form of the head, and its similarity to that of the larva state of hexapod insects, and partly from the general form of their bodies being similar to that of those larvæ. This was the view taken of these animals by Latreille, Leach, Gervais, and some others, and very recently even by Lucas. But a different, and, as I believe, more correct view and arrangement have been followed by Professor Brandt, who regards the *Chilopoda* as the first, and the *Chilognatha* as the second division of the class. Although I cannot entirely agree with Brandt in his division of the *Chilognatha* into masticating and sucking species, because, as Lucas has recently remarked, there are species, even among the *Chilopoda*, which have the external organs of nutrition fitted only for taking liquid food, as in the little *Scolopendrella*, I fully agree with him in the superiority of the *Chilopoda*, as an order, over the *Chilognatha*, notwithstanding the less compact structure of the head in the former. The general characters of the *Chilopoda* certainly point them out as the most perfect animals of this osculant class of Articulata. The more compact form of body, the reduced number of the organs of locomotion, the greater activity,